Claims

1. Device for a torque or shear force transmitter for determination of fibre concentration or viscosity in pulp suspensions and which is adapted to measure an angle deviation between two concentric shafts (9, 11), of which the outer is driven with a constant rotational speed while the inner, which is influenced by a present resistance torque in the suspension via a measuring body (5), is elastically connected to the outer, whereby the arisen angle deviation form a function of the torque applied on the measuring body (5), **characterized in** a feedback system for bringing the inner shaft or measuring shaft (11) to take a zero position independent of the magnitude of the torque, which system comprises an electromagnetic feedback coil (18), which encircles two pole shoes (19) journalled in bearing points (20) at the end of the outer shaft in the form of a hollow shaft (9), at the same time as each pole shoe (19) is connected to the measuring shaft (11), whereby a current, generated by means of a transducer (12) and dependent on the present angle deviation, is sent to the winding (23) of the coil (18), where a magnetic field of force (25) is generated, whose strength is determined by the current flowing through the coil (18) and the distance (24), which arise between the pole shoes (19) and the magnetic parts of the feedback coil, which latter obtain different polarity and provide a resetting of the pole shoes (19) to a preset set point together with the measuring shaft (11) and which current magnitude is a measure of the present shear force torque, which is convertible to suitable output signal.

2. Means according to claim 1, **characterized in** that each pole shoe (19) is connected to the measuring shaft (11)

via pull rods (21) and a transfer arm (22) mounted at the end of the measuring shaft (11).

3. A method for resetting of the measuring shaft in a torque and/or shear force transmitter by means of a feedback system according to claim 1 in order to take zero position independent of the magnitude of the present torque and measure the force the feedback system requires to exert on the measuring shaft in order for it to take zero position, **characterized in** that the current the transducer (12) sends to the winding (23), of the magnetic feedback coil (18) and which represents the present angle deviation between the hollow shaft (9) and the measuring shaft (11) forms a magnetic field of force (25) in the magnetic parts of the system and which strength of the field of force is determined by the current that flows through the coil (18) and the distance or gap (24) which arises between the magnetic parts of the pole shoes (19) and the feedback coil (18), whereby on each side of the gap (24) the magnetic parts will obtain different polarity and will attract each other and when the torque and/or shear force torque increases momentarily the gap (24) will increase at the same time as the angle deviation between the shafts will change proportionally, the transducer (12) increases the current to the coil (18) and the magnetic field of force (25) increases and pulls the pole shoes (19) back to a preset set point at the same time as the measuring shaft (11) is returned to its initial position.